tion of the touchpad. However, it is to be appreciated that it is not necessary to arrange the regions in strict accordance with the underlying pattern of sensing conductors **2**, in order for the present invention to work.

[**0088**] Each conductive region **7** acts to concentrate the electric field of the sensing conductors **2** in the vicinity of that conductive region, thereby accentuating the variation in capacitance resulting from the proximity of a finger close to the region.

[**0089**] If the touchpad is to be used as a keypad, the conductive regions **7** may preferably be arranged so as to be coterminous with the site of a corresponding key. The size and shape of the conductive regions **7**, may preferably be selected so as to be substantially similar to the size and shape of the key size.

[**0090**] Such an arrangement is shown in **FIG. 12**, in which the conductive regions **7** are arranged in the form of a stylised keypad, having separations between the conductive regions which have been selected to be comparable to the width of the conductive regions **7** themselves i.e. they are widely spaced apart.

[**0091**] In this arrangement, when a finger **1** touches one of the conductive regions **7**, the variation in capacitance is sensed through the dielectric medium **6** by the sensing layer. However, use of such conductive regions **7** eliminates the possibility of determining exact positions of the touch points, but instead provide strong quantised signals when touched, allowing a suitable scanning apparatus to easily determine which conductive region **7** was touched and at what time. This effect allows a discontinuous conductive layer **4** to be used as a co-ordinate position indicator.

[**0092**] However, in order to achieve a strong capacitive coupling between adjacent conductive regions **7**, the separations between the conductive regions **7** should be made as small as possible without short circuiting occurring between adjacent conductive regions **7**. The size of the conductive regions **7** is determined by the resolution required in the touchpad, and is preferably about half of the resolution. For example, if a resolution of 5 mm is required, then the conductive regions should be about 3 mm by 3 mm (i.e. for a square region) with a spacing of about 100 microns between adjacent regions. In this arrangement, conduction between adjacent conductive regions **7** is not possible, and therefore the conductive layer **4** as a whole does not act as a conductive medium per se, instead the conductive regions are coupled by very strong capacitive coupling. The resistivity of the conductive layer **4**, as a whole, in this arrangement will be of the order of thousands of millions of ohms per square. In the preferred embodiment of **FIG. 14**, the conductive regions **7** are closely arranged and as illustrated in **FIG. 15**, adjacent conductive regions **7** are capacitively coupled, thereby enabling any induced capacitive signal to be dispersed to adjacent neighbours surrounding the touch point. The adjacent capacitive coupling increases the capacitive signal and assists in dispersing the signal. The capacitive signal spreads through the dielectric **6** and induces a corresponding variation in the capacitive environment of the underlying sensing conductors **2** in the sensing layer.

[**0093**] This effect can be improved by using two conductive layers **4**, **4'** as described in relation to the embodiment as shown in **FIG. 11**. In this embodiment, as shown in **FIGS. 16 and 17**, both of the conductive layers are discontinuous, with each having a plurality of electrically isolated conductive regions **7**, **7'**, such as formed by deposition of ITO or ATO transparent oxides for instance. Preferably, the further conductive layer is supported by a substantially opposing surface of the dielectric medium **6**, thereby sandwiching the further conductive layer between the dielectric medium **6** and the sensing layer. The conductive regions **7'** of the further conductive layer are separated by regions of the opposing surface of the dielectric medium **6**.

[**0094**] Preferably, the conductive regions **7** of the conductive layer and the conductive regions **7'** of the further conductive layer are configured so as to be substantially coterminous i.e. both layers comprise the same grid patterns which are substantially aligned.

[**0095**] Alternatively, the conductive regions **7** of the conductive layer and the conductive regions **7'** of the further conductive layer are configured so as to be substantially overlapping and non-coterminous i.e. both layers comprise the same keypad patterns but have a substantially translated alignment. This arrangement is shown in the embodiment of **FIGS. 16 and 17**, where adjacent and overlapping conductive regions **7**, **7'**, on either side of the dielectric medium **6**, are strongly capacitively coupled through the dielectric, thereby accentuating the strength of the capacitive signal induced by a touch.

[**0096**] Herein the mapping of the areas of corresponding conductive regions **7**, **7'** between the two conductive layers is referred to as 'registering'.

[**0097**] It is to be appreciated that although the preferred embodiments, as exemplified by FIGS. **12** to **17**, show stylised keypads comprising rectangular conductive regions **7**, **7'**, this is not meant to be limiting and therefore any suitable geometric shape may be used as a template for the shape of the region e.g. circular, triangular, trapezoidal or hexagonal etc.

[**0098**] In alternative embodiments, the resistance of an ITO layer, as a whole, may preferably be increased from the intrinsically low, 10 ohms per square, to the required range of values by uniformly etching away much of the thickness of the deposited conductive layer, to produce a thinner, more resistive layer. For example, if 99% of the layer thickness is etched away, a 10 ohms per square layer will become a 1000 ohms per square layer.

[**0099**] Alternatively, portions of the conductive layer **4** may preferably be completely etched away to leave a plurality of conductive regions linked by thin bridges **8** of remaining ITO material for instance, as shown in **FIG. 18**. Preferably, the conductive regions **7** have a relatively large width as compared to the width of the conductive bridges **8**. The resistance of the etched conductive layer may further be preferably increased by etching away the thickness of the conductive bridges **8** as compared to the thickness of the conductive regions **7**.

[**0100**] It is to be appreciated that although the above embodiments describe the use of ITO material, other conductive materials, having differing degrees of transparency, may be used in a similar fashion.

[**0101**] Referring to **FIGS. 19 and 20**, there are shown two embodiments of the touchpad of the present invention, in